

WHAT IS CLAIMED IS:

1. An electrical contact having a high conductive metal, a refractory element made of a metal nitride or a metal oxide, and an active metal, characterized in that said active metal is the same metal as said refractory element.
2. An electrical contact as claimed in claim 1, characterized in that the refractory element includes MgO, Al<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>, Ti<sub>2</sub>O<sub>3</sub>, ZrO<sub>2</sub>, ThO<sub>2</sub>, Cr<sub>2</sub>O<sub>3</sub>, Nb<sub>2</sub>O<sub>5</sub>, Y<sub>2</sub>O<sub>3</sub>, ZnO, Mg<sub>3</sub>N<sub>2</sub>, AlN, TiN, ZrN, CrN, Cr<sub>2</sub>N, NbN, BN and Si<sub>3</sub>N<sub>4</sub>.
3. An electrical contact as claimed in claim 1, characterized in that said refractory element is contained at 5 to 25 weight %.
4. An electrical contact as claimed in claim 1, characterized in that said refractory element is a metal oxide, and said refractory element is contained at 5 to 20 weight %.
5. An electrical contact as claimed in claim 1, characterized in that said high conductive metal is an alloy mainly constituted by Cu.
6. An electrical contact as claimed in claim 1, characterized in that electrical contact has a center hole having a disc shape and formed in a center of said disc shape, and a plurality of penetrating grooves formed so as to be connected to an outer peripheral portion of the center hole from a center portion of the hole in non-contact with said center hole.

7. An electrical contact as claimed in claim 1, characterized in that a weight ratio between said refractory element and said active metal in said electrical contact member is in a range between 100 : 2 and 100 : 25.

8. An electrical contact as claimed in claim 1, characterized in that said refractory element is a metal oxide, and a weight ratio between said refractory element and said active metal in said electrical contact member is in a range between 100 : 2 and 100 : 20.

9. A method of manufacturing an electrical contact characterized by a step of heating and sintering a mixed powder having a high conductive metal powder, an active metal powder, and a refractory element powder made of a metal oxide of a metal nitride constituted by the same metal as the active metal at a temperature equal to or less than a melting point of said high conductive metal, after pressure molding.

10. A method of manufacturing an electrical contact as claimed in claim 9, characterized in that a grain diameter of said refractory element powder and said active metal powder is equal to or less than  $20 \mu\text{m}$ , and a grain diameter of said high conductive metal powder is equal to or less than  $60 \mu\text{m}$ .

11. A method of manufacturing an electrical contact as claimed in claim 9, characterized in that said refractory element is constituted by a metal

oxide, a grain diameter of the high conductive metal powder is equal to or less than  $60 \mu\text{m}$ , and a grain diameter of the refractory element is equal to or less than  $10 \mu\text{m}$ .

12. A method of manufacturing an electrical contact as claimed in claim 9, characterized in that a pressure in said pressure molding is adjusted such that a relative density obtained by said pressure molding is between 65 and 75 %, and a heating temperature and a heating time in said sintering are adjusted such that a relative density after being sintered is equal to or more than 92 %.

13. A method of manufacturing an electrical contact as claimed in claim 9, characterized in that said pressure molding step is executed under a pressure between 120 and 500 MPa.

14. An electrode for a vacuum interrupter having a disc-like electrical contact, a reinforcing member integrally bonded to an opposite surface to an arc generating surface in said electrical contact, and an electrode rod bonded to said reinforcing member, characterized in that said electrical contact is constituted by the electrical contact as claimed in claim 1.

15. An electrode for a vacuum interrupter as claimed in claim 14, characterized in that said disc-like electrical contact and the reinforcing member have a center hole in a center of the arc generating

surface, said electrode rod is inserted to said center hole so as to be bonded to said reinforcing member, and a surface of said electrode rod close to an arc generation is formed lower than said arm generating surface.

16. An electrode for a vacuum interrupter as claimed in claim 14, characterized in that said electrode rod has a small-diameter portion in which a diameter of a portion bonded to said reinforcing member is smaller than a diameter of a portion connected to an external portion.

17. A vacuum interrupter provided with a fixed side electrode and a movable side electrode within a vacuum container, characterized in that at least one of said fixed side electrode and said movable side electrode is constituted by the electrode as claimed in claim 14.

18. A vacuum circuit-breaker having a vacuum interrupter provided with a fixed side electrode and a movable side electrode within a vacuum container, a conductor terminal connecting each of said fixed side electrode and said movable side electrode within said vacuum container to various electrical equipment in an outer side of said vacuum interrupter, and an opening and closing means driving said movable side electrode, characterized in that said vacuum interrupter is constituted by the vacuum interrupter as claimed in claim 17.

19. A switchgear for a pad mount transformer, having an outer vacuum container, a plurality of vacuum interrupters including a fixed side electrode and a movable side electrode provided within said vacuum container, a flexible conductor electrically connecting said plurality of vacuum interrupters to each other, an insulation tube fixing said fixed side electrode to said outer vacuum container in an insulative manner, and a bellows movably fixing said movable electrode to said outer vacuum container, characterized in that said vacuum interrupter is constituted by the vacuum interrupter as claimed in claim 17.